

In the Claims

Claims 1-26 are pending in the application.

Claims 1-26 are rejected.

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AUG 25 2008

Explanation of Amendments in the Claims:

1. (currently amended) A fertilizer system for extracting nitrogen compounds and other plant nutrients from exhaust gases of a combustion device, the system comprising:

an exhaust chamber having an inlet and an outlet and being arranged for receiving the exhaust gases from the combustion device therethrough;

a catalytic converter coupled to an inlet of the exhaust chamber and being for receiving the exhaust gases therethrough prior to the exhaust chamber;

a water injector arranged for injecting water into the exhaust chamber ~~for mixing with such that the water mixes with~~ the exhaust gases to form a water vapor;

an air pump arranged for injecting air into the exhaust gases near the water injector;

a condensing chamber;

an outlet pipe arranged to direct the water vapor and the exhaust gases from the exhaust chamber to the condensing chamber;

the condensing chamber being arranged for condensing said water vapor exiting the exhaust chamber with the exhaust gases to form a condensate solution; and

a collector arranged for collecting said condensate solution from the condensing chamber; ~~characterised in that said condensate solution being formed comprises water and one or more compounds selected from the group including nitrate, nitrite and ammonium.~~

2. (original) The system according to Claim 1 wherein there is provided a distribution system for distributing the condensate solution to a planted

area.

3. (original) The system according to Claim 2 wherein the condensate solution is fully diverted to the distribution system.

4. (original) The system according to Claim 2 wherein the condensate solution is continuously diverted to the distribution system.

5. (currently amended) The system according to Claim 1 wherein the exhaust chamber is arranged such that only water is added to the exhaust gases to form the condensate solution.

6. (original) The system according to Claim 1 wherein the combustion device comprises an internal combustion engine.

7. (currently amended) The system according to Claim 2 wherein the distribution system comprises a plant care equipment and 1 in combination with mobile device supported on wheels for rolling movement along the ground wherein the combustion device comprises an engine driving the plant care equipment arranged for propelling the mobile device.

8. (currently amended) The system according to Claim 7 wherein the plant care equipment mobile device comprises a mower.

9. (currently amended) The system according to Claim 2 wherein the distribution system comprises a crop irrigation system and wherein A fertilizer system in combination with an irrigation system for extracting nitrogen compounds and other plant nutrients from exhaust gases; the irrigation system comprising: an irrigation pump arranged to pump water from a water source to an area to be irrigated, the irrigation pump including an inlet arranged to communicate with the water source and an outlet arranged to communicate with a distribution system of the area to be irrigated; and an internal combustion engine arranged for driving the pump and being arranged to produce exhaust gases; the fertilizer system comprising:

an exhaust chamber having an inlet and an outlet and being arranged for receiving the exhaust gases from the internal combustion engine therethrough;

a water injector arranged to receive water from the outlet of the pump and to inject the water into the exhaust chamber such that the water mixes with the exhaust gases to form a water vapor;

a condensing chamber arranged to condense said water vapor exiting the exhaust chamber with the exhaust gases to form a condensate solution; and

a collector arranged to collect said condensate solution from the condensing chamber;

the collector is being coupled to communicate with an the inlet of an the irrigation pump so as to be arranged for dispensing the condensate solution into irrigation water pumped through the irrigation pump, the combustion device comprising a motor driving the irrigation pump.

10. (currently amended) The system according to Claim 9 wherein the water injector is coupled to an the outlet of the irrigation pump whereby such that the water injected into the exhaust chamber comprises only a portion of the water pumped by the irrigation pump.

11. (currently amended) The system according to Claim 9 wherein the condensing chamber includes a condenser core which is cooled by irrigation water pumped by the irrigation pump passing therethrough.

12. (currently amended) The system according to Claim 2 9 wherein there is provided a shut-off valve coupled in series between the collector and the inlet of the irrigation pump the distribution system which is arranged to be open only when responsive to operation of the internal combustion engine distribution system is operating.

13. (currently amended) The system according to Claim 4 9 wherein

the water injector includes a float control valve coupled in series therewith between the outlet of the irrigation pump and the water injector, the float control valve being supported in the condensing chamber such that the water injector is arranged to inject water into the exhaust chamber in response to a level of condensate in the condensing chamber falling below a prescribed level of condensate.

14. (currently amended) The system according to Claim 4 9 wherein there is provided a catalytic converter coupled to an inlet of the exhaust chamber arranged for receiving the exhaust gases therethrough prior to the exhaust chamber.

15. (currently amended) The system according to Claim 4 9 wherein there is provided an air pump arranged for injecting air into the exhaust gases near the water injector.

16. (currently amended) The system according to Claim 1 wherein there is provided high voltage arc means arranged for generating an electric arc in a passage through which the exhaust gases pass.

17. (original) The system according to Claim 1 wherein there is provided an electrical field generator surrounding a passage through which the exhaust gases pass.

18. (original) The system according to Claim 1 wherein a portion of water from the injector is diverted to an electrolysis device before injection into the exhaust gases for injecting hydrogen and oxygen into the exhaust gases.

19. (original) The system according to Claim 1 wherein the condensate solution includes nitrite, nitrate, ammonium, sulphur, phosphorus, magnesium, zinc, iron, copper and carbon dioxide as a carbonic acid.

20. (currently amended) A method of fertilizing by extracting nitrogen compounds and other plant nutrients from exhaust gases of a combustion device, the method comprising:

operating a combustion device to produce exhaust gases;
directing the exhaust gases through an exhaust chamber in communication with the combustion device;

injecting water into the exhaust chamber for mixing with such that the water mixes with the exhaust gases to form a water vapor prior to exiting the exhaust chamber;

directing the water vapor and the exhaust gases from the exhaust chamber to a condenser;

condensing said water vapor exiting the exhaust chamber with the exhaust gases in the condenser to form a condensate solution comprising water and one or more compounds selected from the group including nitrate, nitrite and ammonium; and

collecting distributing said condensate solution from the condensing chamber to an area to be fertilized.

21. (currently amended) The method according to Claim 20 wherein the condensate solution includes nitrate, nitrite, ammonium, sulphur, phosphorus, magnesium, zinc, iron, copper and carbon dioxide as a carbonic acid.

22. (original) The method according to Claim 20 wherein the combustion device comprises a motor of an irrigation pump of an agricultural irrigation system and wherein the method includes dispensing condensate from the condensing chamber into irrigation water being pumped through the irrigation pump.

23. (currently amended) The method according to Claim 20 22 wherein injecting water into the exhaust chamber comprises directing a portion of the irrigation water being pumped through the irrigation pump into the exhaust chamber.

24. (original) The method according to Claim 20 including fully diverting the condensate solution for distribution to a designated planted area.

25. (original) The method according to Claim 20 including only adding water to the exhaust gases to form the condensate solution.

26. (cancelled)

27. cancelled

28. cancelled

29. (new) A fertilizer system in combination with a mobile device supported on wheels for rolling movement along the ground and including an internal combustion engine arranged for propelling the mobile device, the fertilizer system being arranged to extract nitrogen compounds and other plant nutrients from exhaust gases of the internal combustion engine, the fertilizer system comprising:

a source of water arranged to be supported on the mobile device;

an exhaust chamber having an inlet and an outlet and being arranged for receiving the exhaust gases from the combustion device therethrough;

a water injector arranged for injecting water from the source of water into the exhaust chamber such that the water mixes with the exhaust gases to form a water vapor;

a condensing chamber arranged for condensing said water vapor exiting the exhaust chamber with the exhaust gases to form a condensate solution; and

a distribution system arranged for collecting said condensate solution from the condensing chamber and dispensing the condensate solution onto the ground.